

FIGURE 1

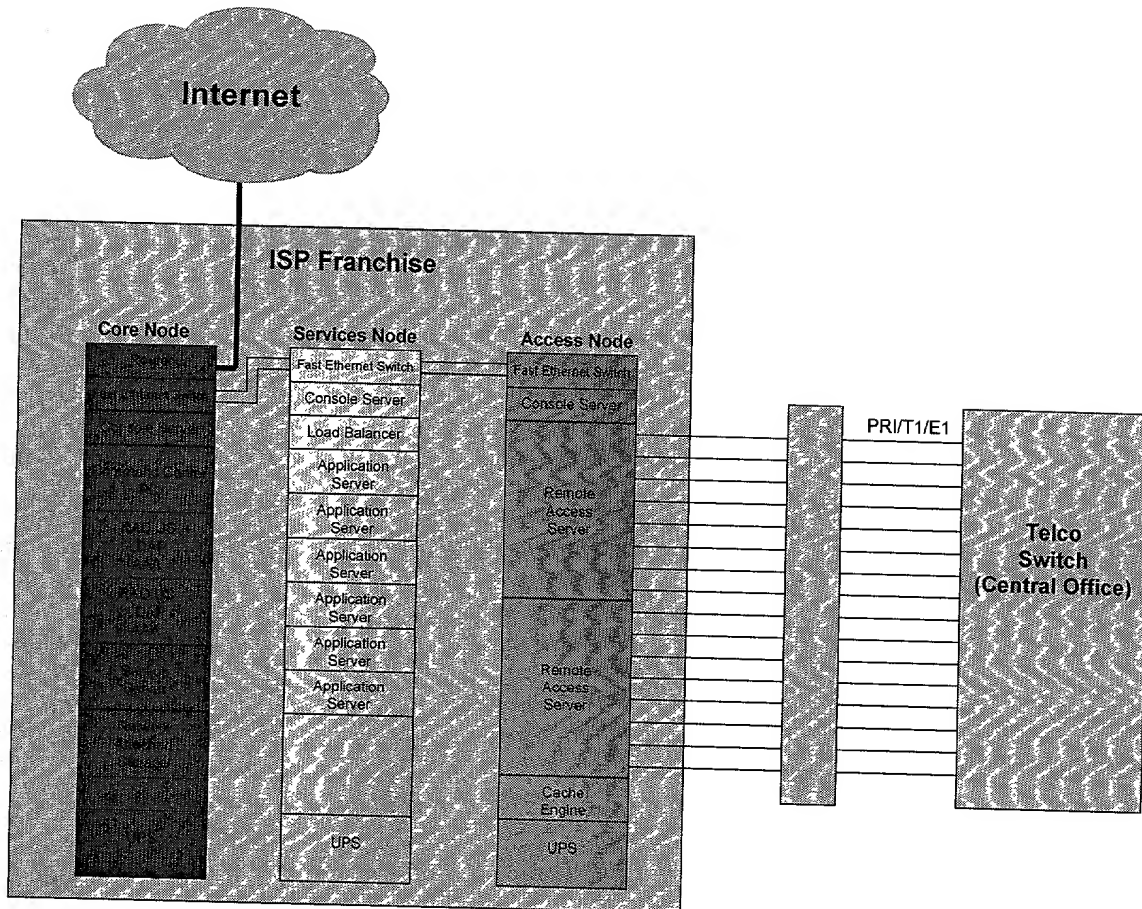
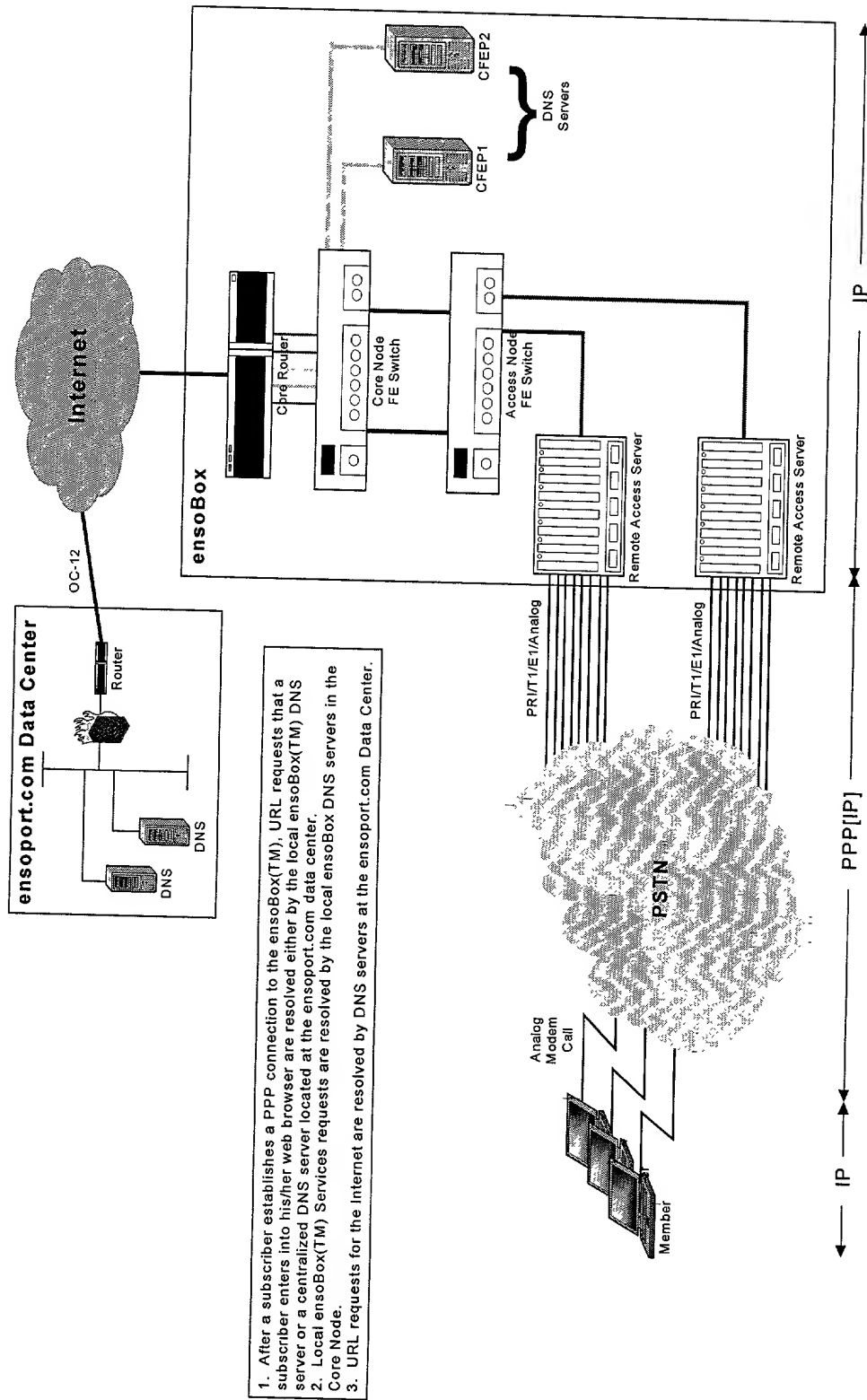
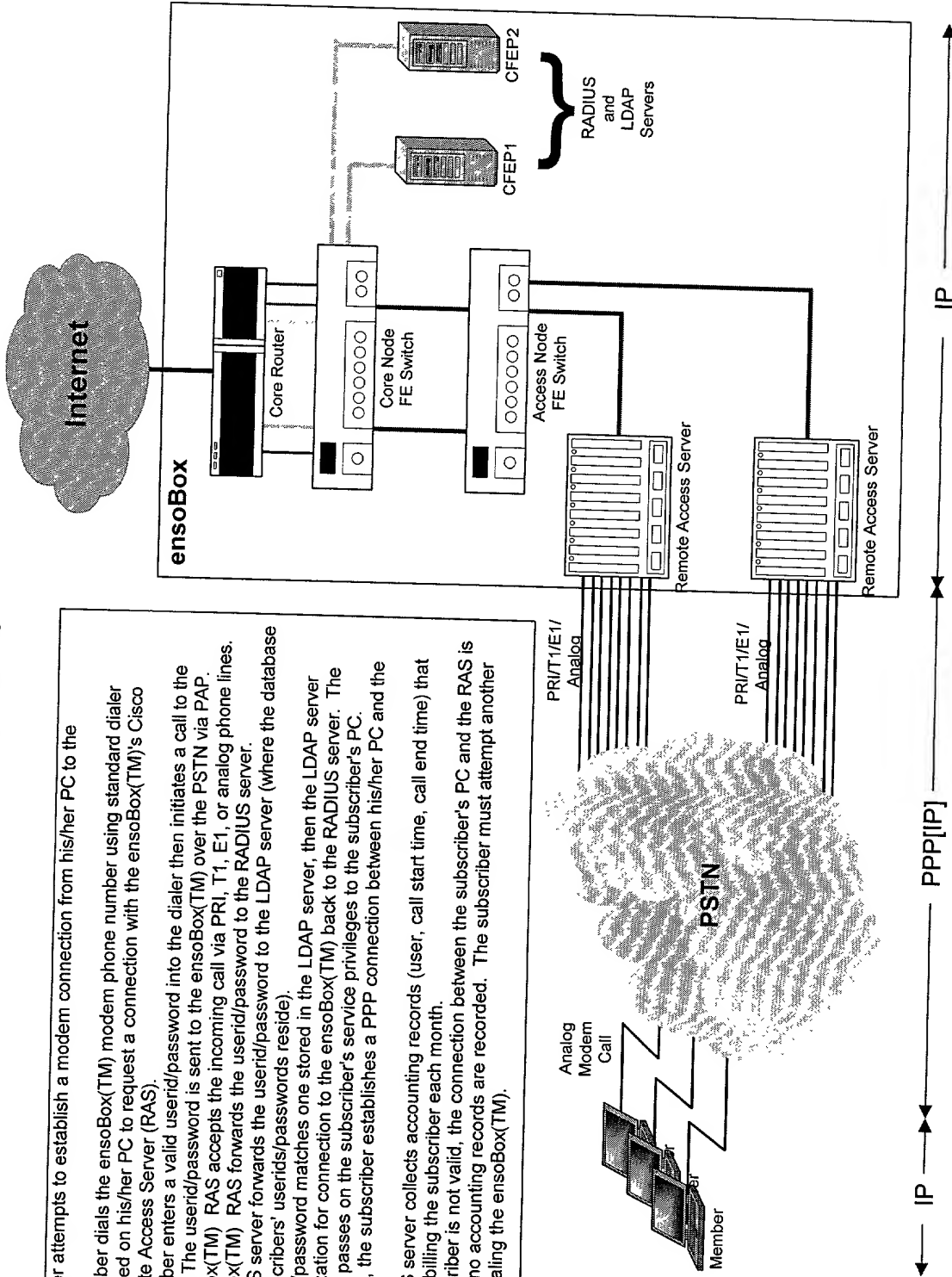


FIGURE 2

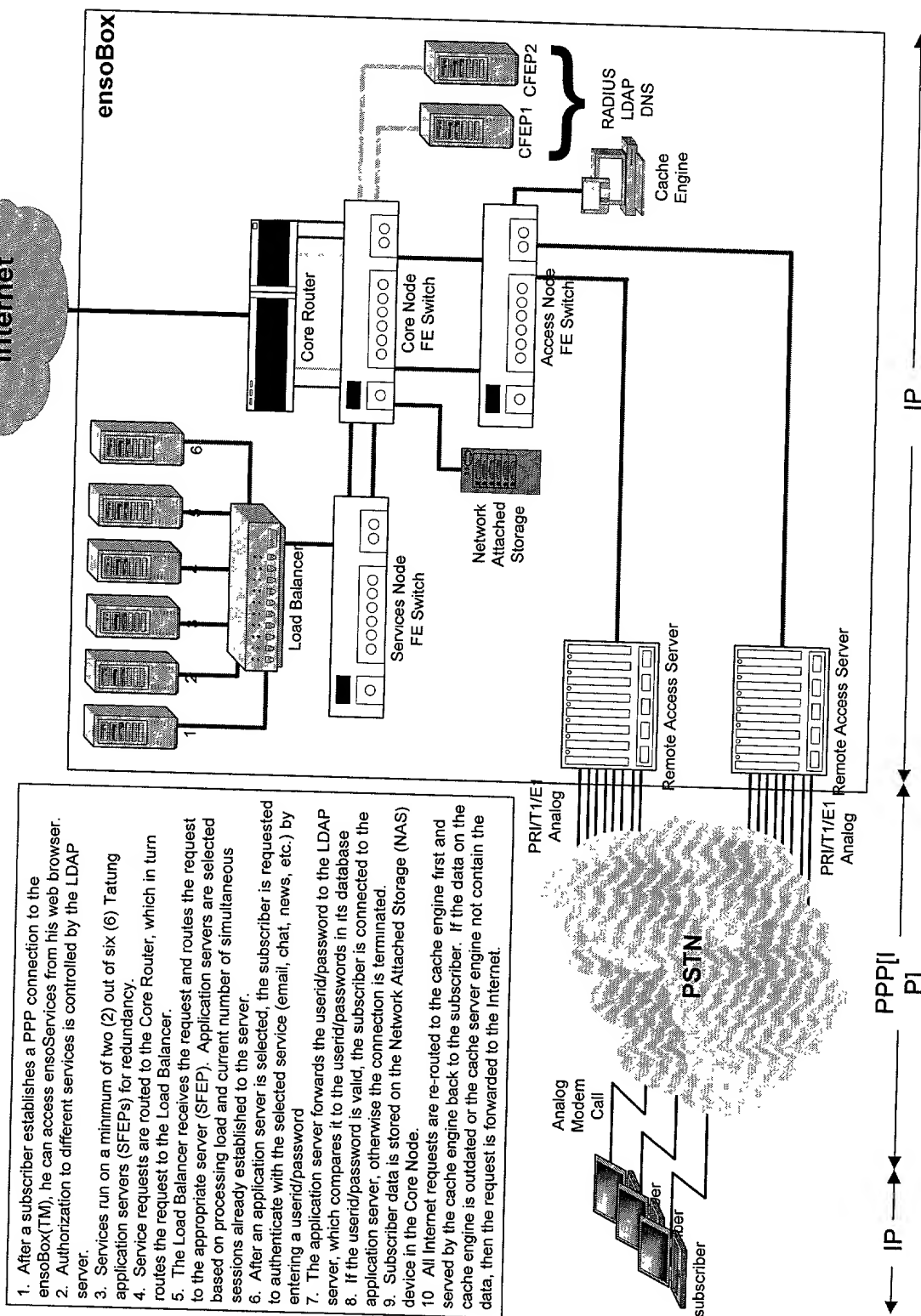


**FIGURE 3**

1. A subscriber attempts to establish a modem connection from his/her PC to the ensoBox(TM).
2. The subscriber dials the ensoBox(TM) modem phone number using standard dialer software installed on his/her PC to request a connection with the ensoBox(TM)'s Cisco AS5300 Remote Access Server (RAS).
3. The subscriber enters a valid userid/password into the dialer then initiates a call to the ensoBox(TM). The userid/password is sent to the ensoBox(TM) over the PSTN via PAP.
4. The ensoBox(TM) RAS accepts the incoming call via PRI, T1, E1, or analog phone lines.
5. The ensoBox(TM) RAS forwards the userid/password to the RADIUS server.
6. The RADIUS server forwards the userid/password to the LDAP server (where the database of all valid subscribers' userids/passwords reside).
7. If the userid/password matches one stored in the LDAP server, then the LDAP server returns authorization for connection to the ensoBox(TM) back to the RADIUS server. The RADIUS server passes on the subscriber's service privileges to the subscriber's PC.
8. If authorized, the subscriber establishes a PPP connection between his/her PC and the RAS.
9. The RADIUS server collects accounting records (user, call start time, call end time) that will be used for billing the subscriber each month.
10. If the subscriber is not valid, the connection between the subscriber's PC and the RAS is terminated and no accounting records are recorded. The subscriber must attempt another session by re-dialing the ensoBox(TM).



## FIGURE 4



**Internet**

**Core Node**

WAN 50

Core Network (GREEN)

Franchise Network (BLUE)

Members 1 Network (RED)

Members 2 Network (RED)

**Services Node**

FE 0/0, 0/1, 1/0, 1/1, 1/2

FE 2/0, 2/1, 2/2

Services Network (BLUE)

Members 1 Network (RED)

Members 2 Network (RED)

**Access Node**

FE 0/0, 0/1, 1/0, 1/1, 1/2

FE 2/0, 2/1, 2/2

Access Network (RED)

Members 2 Network (RED)

**Franchise LAN**

FE 0/0, 0/1, 1/0, 1/1, 1/2

FE 2/0, 2/1, 2/2

Franchise Network (RED)

Members 3 Network (RED)

**CS-50 Public VPs**

VLAN2 - AB C.10/26

Mail (SFE1/2) - AB C.11/26

Web (SFE3/4) - AB C.12/26

Chat (SFE5/6) - AB C.13/26

News (SFE1) - AB C.14/26

**Services VPs**

DNS - AB C.7/26

DNS - AB C.7/26

DNS - AB C.7/26

RADIUS - AB C.7/26

RADIUS - AB C.7/26

**Access VPs**

FE 0/0 - AB C.1/26

FE 0/1 - AB C.65/26

E 1/0 - AB C.129/26

E 1/3 - AB C.193/26

E 1/1 - AB X.1/24

E 1/2 - AB Y.1/24

**Management VLAN**

- Services VLAN 100

- Management VLAN 200

- Core VLAN 300

- Franchise VLAN 400

- Members VLAN 500

FIGURE 6

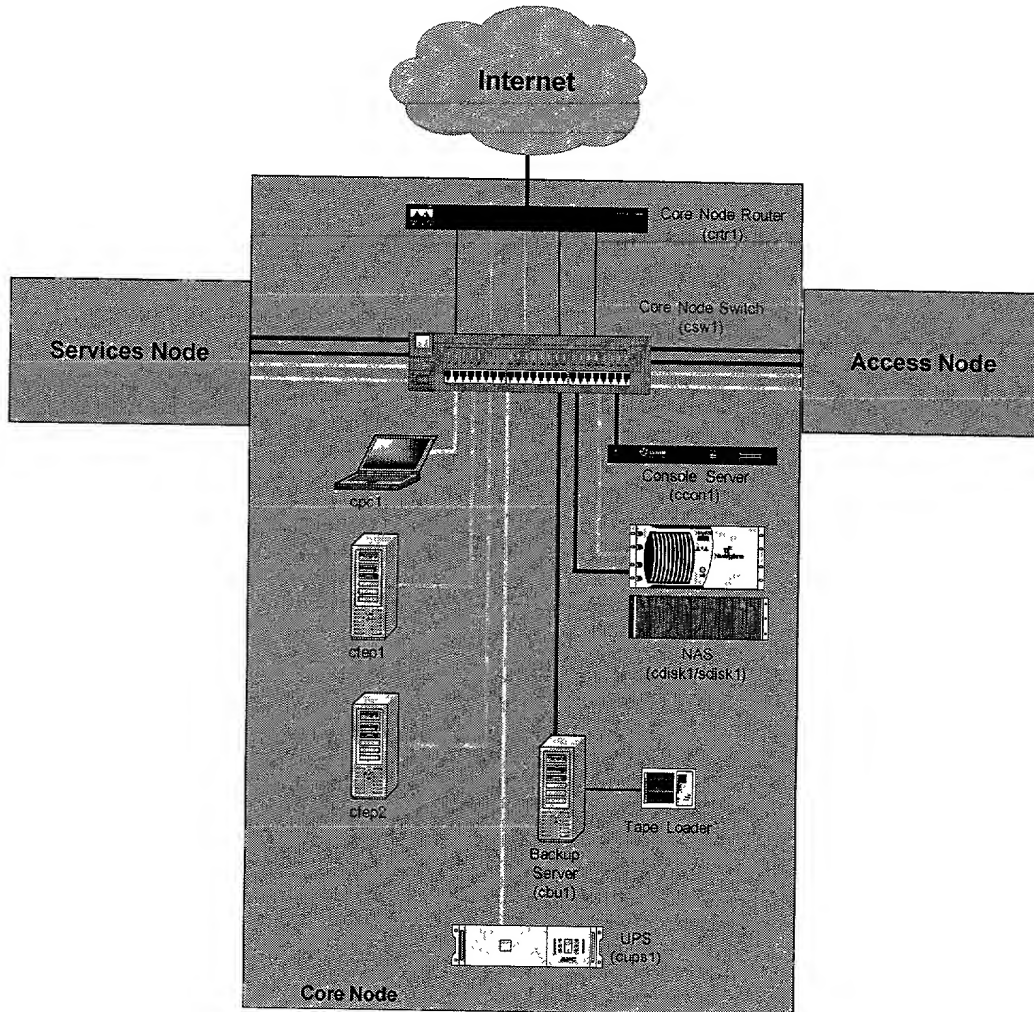




FIGURE 7

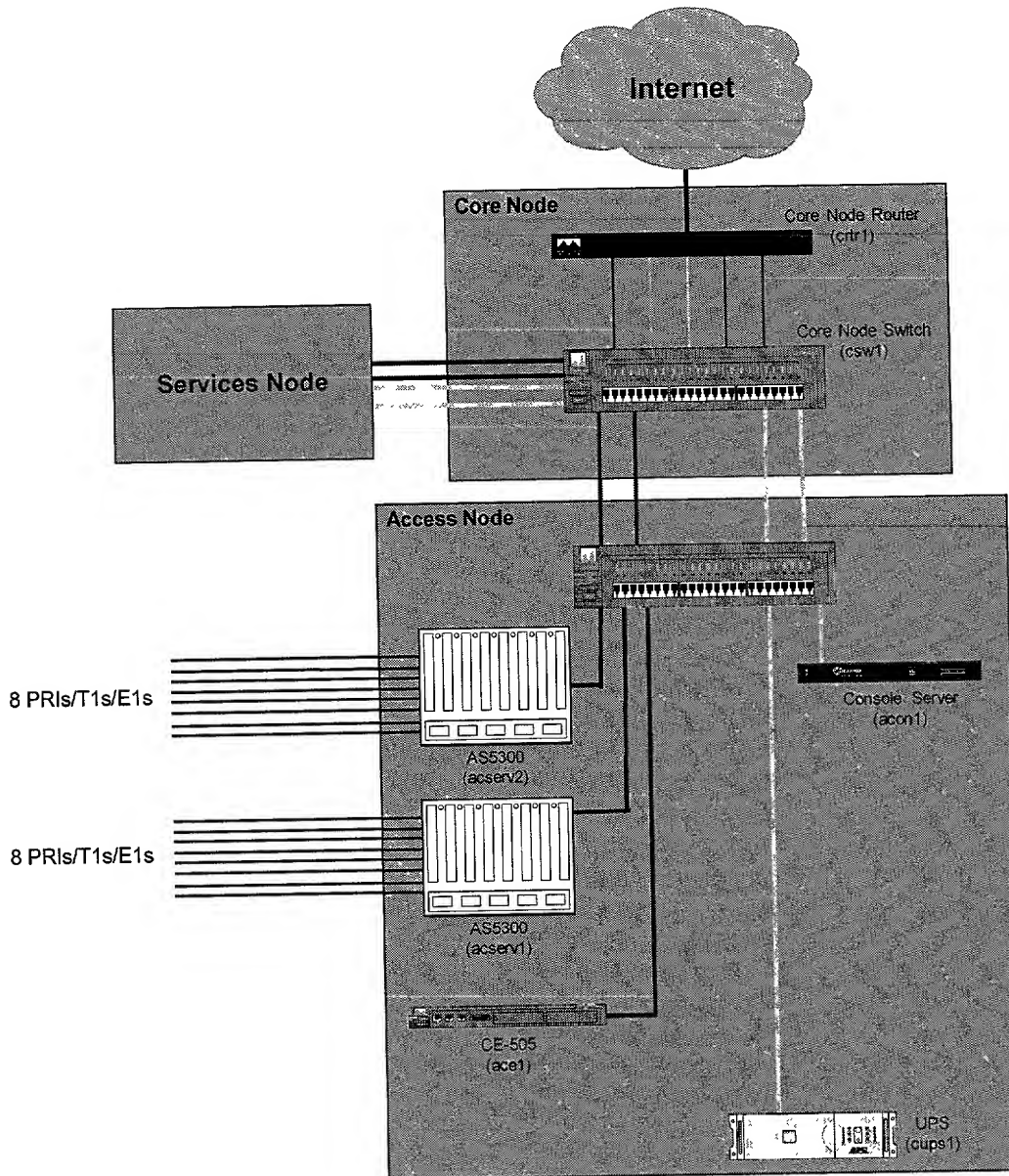


FIGURE 8

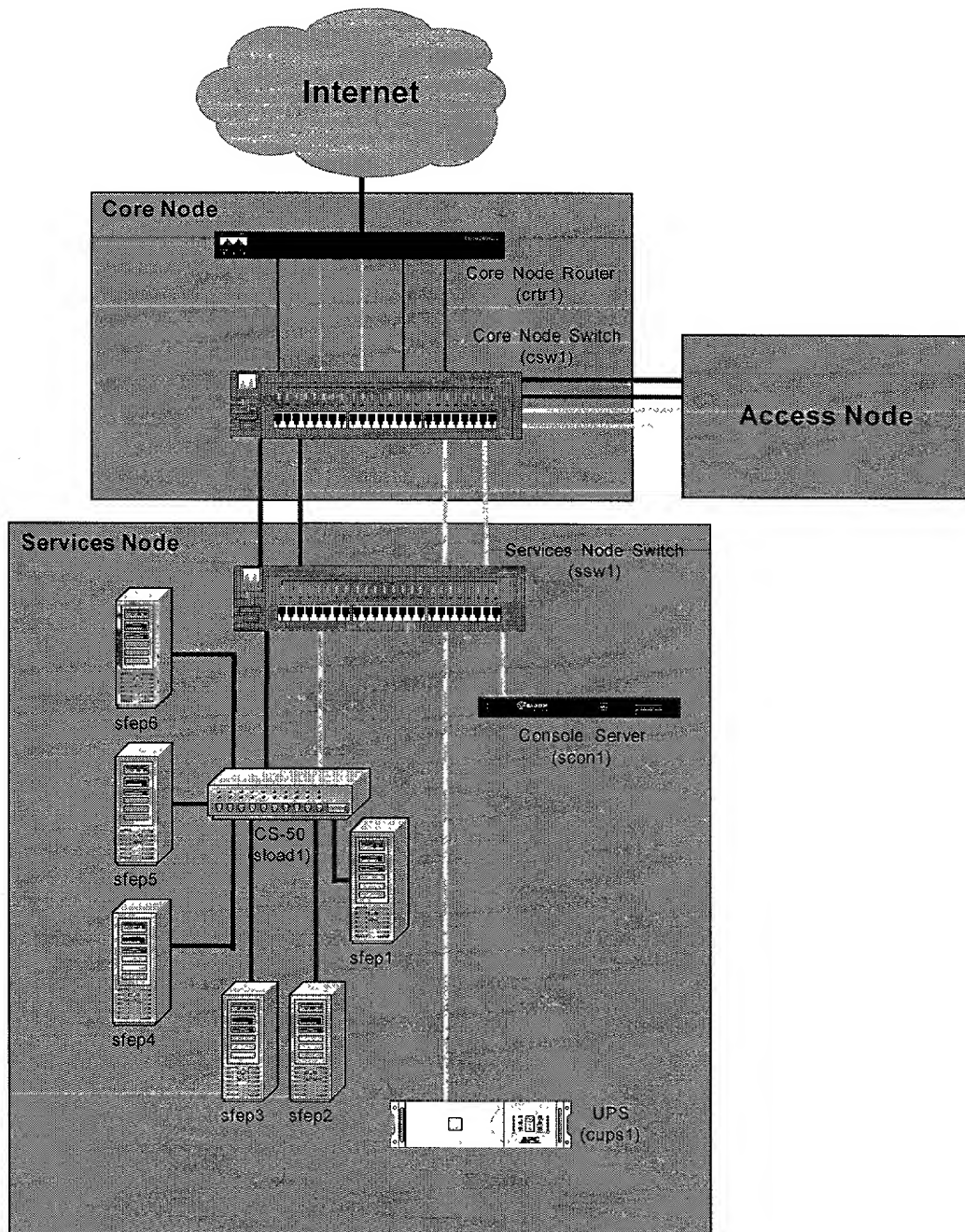
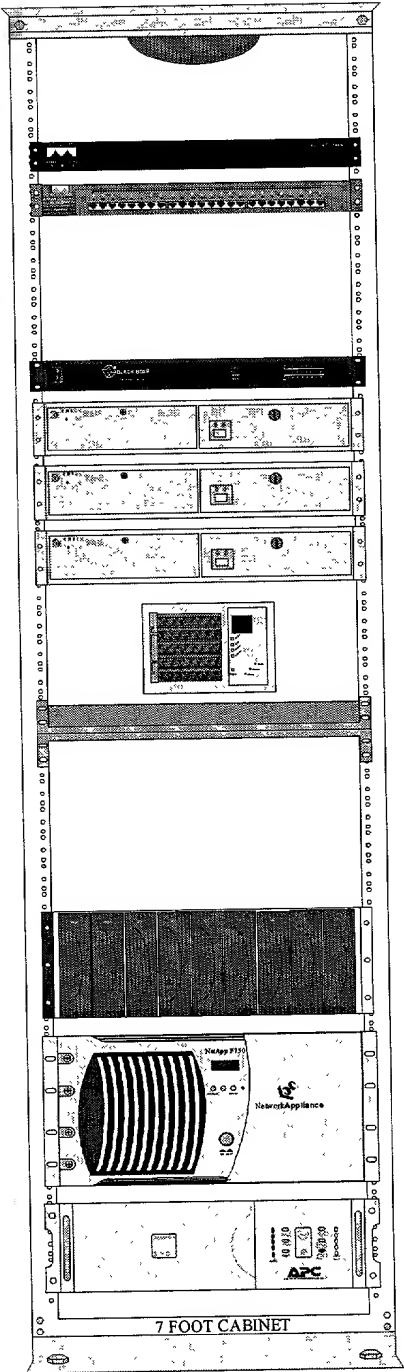




FIGURE 9



# DECEMBER



FIGURE 11

